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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,273	12/11/2000	Thomas C. Harrop	50671-P018US-10013652	5508

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EXAMINER

NGUYEN, DUSTIN

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/734,273	<b>Applicant(s)</b> HARROP, THOMAS C.	
	<b>Examiner</b> Dustin Nguyen	<b>Art Unit</b> 2154	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6-16 and 18-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-16 and 18-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-4, 6-16, 18-33 are presented for examination.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/22/2006 has been entered.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-4, 6-16, 18-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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As per independent claims 1, 9, 15, 23, 29, the limitation “to obtain historical utilization data pertaining to the historical availability to the computer of each monitored hardware resource” is lack of support in the specification to comply with the written description requirement.

As per claims 1, 15, 29, the limitation of “automatically reserving or ordering an additional physical hardware resource that is not in the computer when the signal is provided and which is to be later manually physically added to the computer after the reserving or placing of an order” or “automatically allocating for manual physical addition” is lack of support in the specification to comply with the written description requirement.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4, 18 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following terms lack antecedent basis:

I. the signal - claim 1, 3, 18, 20.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 6-16, 18-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKnight [ US Patent No 6,557,035 ], in view of Urevig et al. [ US Patent No 6,154,787 ].

9. As per claim 1, McKnight discloses the invention substantially as claimed including the method of automatically allocating additional hardware resources to a computer having a plurality of hardware resources, said method comprising:

monitoring use of selected ones of the plurality of hardware resources by the computer to obtain historical utilization data pertaining to the historical availability to the computer of each monitored hardware resources [ i.e. monitor a plurality of hardware utilization parameters including CPU, memory and disk utilization ] [ Figure 5; Abstract; and col 2, lines 13-18 ];

establishing a statistical analysis technique specific to each monitored hardware resource [ i.e. applies linear regression to stored running average performance parameters to determine performance parameters trends ] [ Figure 4; Abstract; and col 5, lines 61-67 ];

automatically analyzing, according to the statistical analysis technique, the historical utilization data for each monitored hardware resource to arrive at a prediction of a future level of availability of each monitored hardware resource [ i.e. prediction of future hardware resource bottleneck and recommend hardware upgrade ] [ Figure 5; Abstract; col 2, lines 2-12; and col 5, lines 56-60 ];

providing a first signal when the prediction of the future level of availability of each monitored hardware resource fails to meet an availability threshold [ i.e. compare the computed

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averages to the thresholds and report results ] [ Figure 5; Abstract; and col 3, lines 55-col 5, lines 52 ];

automatically executing a new statistical analysis technique based on said a second signal [ i.e. determining CPU, memory, disk, LAN, system and disk and memory bottleneck ] [ Figures 5; and col 3, lines 55-col 5, lines 52 ].

McKnight does not specifically disclose

without user intervention, responding to the first signal by automatically reserving or ordering an additional physical hardware resource that is not in the computer when the signal is provided.

Urevig discloses

without user intervention, responding to the first signal by automatically reserving or ordering an additional physical hardware resource that is not in the computer when the signal is provided [ i.e. automatically orchestrates the re-assignment of selected peripheral devices ] [ Abstract; col 2, lines 48-67 ].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of McKnight and Urevig because Urevig' teaching of automatically re-assign resources would allow for optimal usage of resources and save equipment costs [ Urevig, col 3, lines 3-6 ].

10. As per claim 2, McKnight discloses performing at least one calculation with respect to certain of the obtained historical usage data [ i.e. compute average ] [ 45, Figure 3; Abstract; and col 2, lines 1-12 ].

11. As per claim 3, McKnight does not specifically disclose wherein said step of responding to the signal by automatically reserving or ordering occurs when the prediction indicates that the resources are below the availability threshold. Urevig discloses wherein said step of responding to the signal by automatically reserving or ordering occurs when the prediction indicates that the resources are below the availability threshold [ i.e. resources allocate when they are needed and where they are needed ] [ col 2, lines 33-36 and lines 64-67 ]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of McKnight and Urevig because the teaching of Urevig would allow to quickly and automatically re-assign resource with little chance for error [ Urevig, col 3, lines 8-10 ].

12. As per claim 4, Urevig discloses without user intervention, enabling the reduction of the monitored hardware resources when the prediction indicates that the monitored hardware resources will not be required [ i.e. remove ] [ col 8, lines 56-60 ].

13. As per claim 6, McKnight discloses the first signal is in graphical form for each of the monitored hardware resources [ Figure 6; and col 6, lines 1-15 ].

14. As per claim 7, McKnight discloses analyzing available applications with respect to the utilization by the available applications of the monitored hardware resources [ i.e. additional applications ] [ col 4, lines 2-5 ].

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15. As per claim 8, McKnight discloses the monitored hardware resources are selected from the set of resources, including memory, CPU, disk, available ports, and network resources [ col 2, lines 12-20 ].

16. As per claim 9, it is rejected for similar reasons as stated above in claim 1. Furthermore, Urevig discloses without user intervention, enabling an adjustment in resources when the prediction of the future level of availability of the monitored resource fails to meet an availability threshold [ i.e. automatic orchestrates re-assignment of peripheral devices ] [ Abstract; and col 2, lines 63-67 ]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of McKnight and Urevig because Urevig's teaching of automatic orchestrates re-assign devices would allow for optimal usage of resources and save equipment costs [ Urevig, col 3, lines 3-6 ].

17. As per claim 10, it is rejected for similar reason as stated above in claim 2.

18. As per claims 11 and 12, McKnight does not specifically disclose adding the hardware resources to said computer from a remote location and removing the hardware resources from said computer. Urevig discloses adding the hardware resources to said computer from a remote location and removing the hardware resources from said computer [ i.e. add or remove devices ] [ col 8, lines 56-60 ]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of McKnight and Urevig because Urevig's teaching of add or remove devices would allow to balance the workload of the resources.



19. As per claim 13, Urevig discloses storing historical utilization data on resource utilization [ i.e. archival means for recording said automated management of said peripheral devices in a history file for later reference ] [ col 15, lines 64-67 ].

20. As per claim 14, it is rejected for similar reason as stated above in claim 7.

21. As per claims 15 and 16, they are apparatus claimed of claims 1, 2, they are rejected for similar reasons as stated above in claims 1, 2.

22. As per claims 18, 19, 20, 21 and 22, they are apparatus claimed of claims 4, 13, 6, 7 and 8, they are rejected for similar reasons as stated above in claims 4, 13, 6, 7 and 8.

23. As per claims 23-28, they are apparatus claimed of claims 9-14, they are rejected for similar reasons as stated above in claims 9-14.

24. As per claims 29-33, they are program product claimed of claims 9-13, they are rejected for similar reasons as stated above in claims 9-13.

25. Applicant's arguments with respect to claims 1-4, 6-16, 18-33 have been considered but are moot in view of the new ground(s) of rejection.

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26. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).


*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Follansbee John can be reached on (571) 272-3968. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dustin Nguyen  
Examiner  
Art Unit 2154

  
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